WHAT IS CLAIMED IS:

1. A feedforward equalizer (FFE) of a communication system comprising:

an adaptive filter for filtering a receiving signal according to a transfer function including a plurality of adjustable constants to eliminate a pre-cursor inter-symbol interference (pre-ISI) of the receiving signal; and

a digital auto-gain controller (DAGC) coupled to the adaptive filter for adjusting the magnitude of the filtered receiving signal according to the transfer function;

wherein the adjustable constants includes a main-tap and the value of the main-tap is predetermined.

2. The FFE as claimed in claim 1, wherein the adjustable constants further includes a first adjustable constant adjacent to the main-tap and the value of the first adjustable constant is predetermined.

3. The FFE as claimed in claim 1, wherein the main-tap is predetermined to be 1.

4. The FFE as claimed in claim 1, wherein the transfer function is $C_0 Z^3 + C_1 Z^2 + C_2 Z^1 + C_3 + C_4 Z^{-1} + C_5 Z^{-2} + C_6 Z^{-3}$, wherein C_0, C_1, C_2, C_3, C_4, C_5 ,and C_6 are adjustable constants, Z is a delay element, and C_3 is the main-tap.

5. The FFE as claimed in claim 4, wherein C_3 is predetermined to be 1.

6. The FFE as claimed in claim 4, wherein C_4 is predetermined to be −0.5.

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7. A transceiver of a communication system, comprising:

a front-end receiver for receiving a receiving signal and converting to a first signal with a pre-cursor component and a post-cursor component;

a noise canceller coupled to the front-end receiver 10 for generating a second signal through eliminating the noise of the first signal;

a Feed-Forward Equalizer (FFE) coupled to the noise canceller for generating a third signal through eliminating the pre-cursor component in the second signal according to a transfer function including a plurality of adjustable constants, wherein the adjustable constants includes a main-tap and the value of the main-tap is predetermined; and

a decoding system coupled to the FFE for decoding the third signal and eliminating the post-cursor component in the third signal.

8. The transceiver as claimed in claim 7, wherein the adjustable constants further includes a first adjustable constant adjacent to the main-tap and the value of the first adjustable constant is predetermined.

9. The transceiver as claimed in claim 7, wherein the main-tap is predetermined to be 1.

10. The transceiver as claimed in claim 9, wherein the FFE further includes a digital auto-gain controller (DAGC) for adjusting the magnitude of the third signal according to the transfer function

11. The transceiver as claimed in claim 7, wherein the transfer function is $C_0 Z^3 + C_1 Z^2 + C_2 Z^1 + C_3 + C_4 Z^{-1} + C_5 Z^{-2} + C_6 Z^{-3}$, wherein C_0, C_1, C_2, C_3, C_4, C_5, and C_6 are adjustable constants, Z is a delay element, and C_3 is the main-tap.

12. The transceiver as claimed in claim 11, wherein C_3 is predetermined to be 1.

13. The transceiver as claimed in claim 12, wherein C_4 is predetermined to be –0.5.

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